PATENT CLAIMS

1. A protein having multiple antigen/epitope sequences for antibodies, wherein the protein is immobilized at a solid phase by at least one binding site, and the antigen/epitope sequences are spaced by bridge compositions in such a way that after binding of the binding site at the solid phase the antigen/epitope sequences are exposed for a binding of the assigned antibodies from the liquid phase.

2. A protein according to claim 1, wherein a bridge composition is formed by insertion of bridge sequences between two antigen/epitope sequences and/or deletion of a partial sequence between two antigen/epitope sequences arranged in a total sequence.

3. A protein according to claim 1, wherein the bridge composition is formed by fusion of a bridge sequence with two antigen/epitope sequences.

4. A protein according to one of the claims 1 to 3, wherein the bridge composition comprises positively charged binding sites for the binding to a negatively charged solid phase, preferably a membrane.

5. A protein according to one of claims 1 to 4, wherein the antigen/epitope sequences bind different antibodies.

6. A protein according to one of claims 1 to 5, wherein the antigen/epitope sequences are repetitive sequence elements of identical or different HIV sub-types.

7. A protein according to one of claims 1 to 5, wherein the antigen/epitope sequences are sequences of different HIV genes and/or strains and/or sub-types.

8. A protein according to one of claims 1 to 5, wherein the antigen/epitope sequences are sequences of a single HIV sub-type.

9. A protein according to one of claims 1 to 8, wherein the bridge composition is a sequence element of gp120.

10. A protein according to one of claims 1 to 9, wherein partial sequences unspecifically binding to antibodies contained in blood are deleted.

11. The application of a protein according to one of claims 1 to 10 for the production of an immobilizate for the detection of antibodies, wherein first the protein is produced in a dissolved manner, then the protein is bound by at least one binding site to a solid phase, and as an option the solid phase with the protein bound thereto is subjected to at least one rinsing step and/or blocking step.

12. The application of a protein according to one of claims 1 to 10 for performing a HIV test, wherein an immobilizate according to claim 11 is produced and said immobilizate is placed in a housing, and wherein a detector solution is brought-in in a reaction zone of the immobilizate or is separately added for application to the immobilizate.

13. A polynucleotide, in particular cDNA, coding for a protein according to one of claims 1 to 10.

14. An expression vector, preferably plasmide, containing a polynucleotide sequence coding for a protein according to one of claims 1 to 10.

15. A cell which is transformed by means of an expression vector according claim 14.

16. A method for the production of a protein according to one of claims 1 to 10, wherein the antigen/epitope sequences and the bridge sequences are selected and the order of the lining-up is defined and DNA coding for the antigen/epitope sequences and for the bridge sequences is subsequently inserted into an expression vector in the defined manner, a cell, preferably E. coli, being transformed by means of the expression vector and transformed cells being selected and cultivated, and wherein the protein expressed from the selected cells is isolated.